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Docket No.: L&L-10206


MICHAEL BURNS

Date: January 16, 2002

U.S. Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

Sir:

Enclosed herewith are the necessary papers for filing the following application for Letters
Patent:

Applicant : MARKUS DOETSCH ET AL.
Title : METHOD AND DEVICE FOR SYNCHRONIZING MOBILE RADIO
RECEIVERS IN A MOBILE RADIO SYSTEM

1 sheet of formal drawings.

The payment in the amount of \$ 740.00 covering the filing fee.

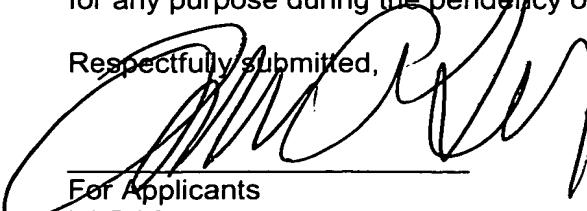
Information Disclosure Statement and 3 References.

PCT Cover Sheet WO 01/06671 A1.

This application is being filed without a signed oath or declaration under the provisions of 37
CFR 1.53(f). Applicants await notification of the date by which the oath or declaration and
the surcharge are due, pursuant to this rule.

The Patent and Trademark Office is hereby given authority to charge Deposit Account No.
12-1099 of Lerner and Greenberg, P.A. for any fees due or deficiencies of payments made
for any purpose during the pendency of the above-identified application.

Respectfully submitted,


For Applicants
LAG:kf

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(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES
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(21) Internationales Aktenzeichen: **PCT/DE00/02272**

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(25) Einreichungssprache: **Deutsch**

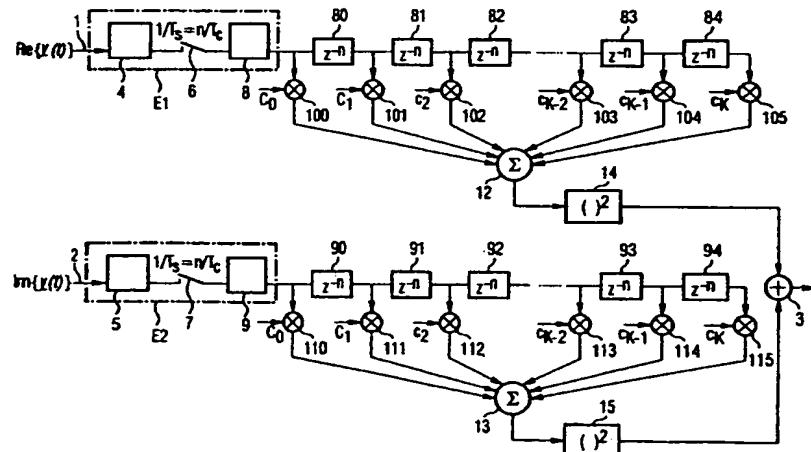
(26) Veröffentlichungssprache: **Deutsch**

(30) Angaben zur Priorität:
199 33 542.7 **16. Juli 1999 (16.07.1999)** DE

[Fortsetzung auf der nächsten Seite]

(54) Title: METHOD AND DEVICE FOR SYNCHRONISING MOBILE TELEPHONE RECEIVERS IN A MOBILE TELEPHONE SYSTEM

(54) Bezeichnung: VERFAHREN UND VORRICHTUNG ZUR SYNCHRONISATION VON MOBILFUNKEMPFÄNGERN IN EINEM MOBILFUNKSYSTEM



(57) Abstract: The invention concerns a method for synchronising mobile telephone receivers in a mobile telephone system, which consists in using a first synchronising channel having a first frequency and via which a known code for all the mobile telephone receivers and for all the base stations of the mobile telephone system is transmitted by means of a signal. The signal is delayed for a unknown time by the transmission from one base station to a mobile telephone receiver, and the first frequency is shifted to a second frequency by the transmission. The method is characterised in that it comprises the following steps: (a) correlating and sampling the received signal; (b) digitally filtering the signal correlated and sampled at step (a); (c) squaring the signal filtered at step (b); (d) determining the highest level of the signal squared at step (c); (e) estimating the unknown duration with the highest signal level determined at step (d); (f) detecting the received signal with the known code; and (g) fine-tuning the second frequency on the first frequency.

(57) Zusammenfassung: Ein Verfahren zur Synchronisation von Mobilfunkempfängern in einem Mobilfunksystem, wobei ein erster Synchronisationskanal, der eine erste Frequenz aufweist und über den ein für alle Mobilfunkempfänger und für alle Basisstationen des Mobilfunksystems bekannter Code mittels

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